

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

*Q5
cont.*

magnet mounted to the rotary body for causing the rotary body to undergo rotation in response to a varying magnetic field; a coil for generating the varying magnetic field; and a core comprised of a plurality of laminated doughnut-shaped magnetic steel sheets each having a plurality of protrusions provided on a periphery through which a wire of the coil is wound, a thickness of the respective magnetic steel sheets being the smallest possible thickness allowable to provide sufficient mechanical strength to enable riveting of the magnetic steel sheets.

2. (Amended) A spindle motor according to claim 1; wherein the magnetic steel sheets forming the core have a thickness in the range of 0.15 mm to less than 0.35 mm.

3. (Amended) A spindle motor according to claim 1; wherein the magnetic steel sheets have a thickness of about 0.2 mm.

4. (Amended) A spindle motor according to claim 1; wherein the respective magnetic steel sheets are provided with a plurality of rivet portions each of which comprises an indentation provided on one side of the respective magnetic steel sheets to form a projection on an opposite side; the magnetic steel sheets are laminated together such that the projections on one of the magnetic steel sheets are fitted to

*A5
cnt.*

the indentations of an adjacent magnetic steel sheet; and the magnetic steel sheets are riveted to each other at the rivet portions to thereby form the laminated structure of the core.

5. (Amended) A core for a spindle motor comprising: a plurality of magnetic steel sheets laminated to each other, each of the magnetic steel sheets having a portion through which a wire of a coil can be passed; wherein a thickness of the magnetic steel sheets is in the range of 0.15 mm to less than 0.35 mm.

6. (Amended) A core for a spindle motor according to claim 5; wherein the magnetic steel sheets have a thickness of about 0.2 mm.

7. (Amended) A method of manufacturing a spindle motor provided with a core formed by laminating a plurality of magnetic steel sheets, the method comprising the steps of:

forming a plurality of rivet portions on each of the magnetic steel sheets by forming at each of the rivet portions an indentation on one side of a respective steel sheet to form a projection on the other side thereof;

at each of the rivet portions, fitting the projection on one magnetic steel sheet to the indentation of an adjacent magnetic steel sheet; and

laminating the plurality of the magnetic steel sheets one by one by riveting the indentation and the

*A5
cored*

projection fitted thereto at each of the rivet portions for making up the core.

Kindly add the following new claims 8-18:

A6

8. A spindle motor according to claim 1; further comprising a frame; and a sleeve fixedly mounted to the frame and defining a cylindrical opening; wherein the rotary body comprises a shaft rotatably disposed in the cylindrical opening of the sleeve and a hub fixedly mounted at one side of the shaft.

9. A spindle motor according to claim 8; wherein the shaft is disposed in the cylindrical opening such that a gap is defined between adjacent walls of the rotatable shaft, the sleeve, and the frame.

10. A spindle motor according to claim 9; further comprising lubricating oil disposed in the gap.

11. A method of manufacturing a spindle motor according to claim 7; wherein the thickness of the respective magnetic steel sheets is the smallest possible thickness which provides the magnetic steel sheets with sufficient mechanical strength to enable formation of the rivet portions.

16
cont.

12. A spindle motor comprising: a rotary body mounted to undergo rotation about an axis; a magnet mounted to the rotary body for causing the rotary body to undergo rotation in response to a varying magnetic field; a coil for generating the varying magnetic field; and a core comprised of a plurality of laminated magnetic steel sheets each having an opening through which a wire of the coil is passed, a thickness of the respective magnetic steel sheets being set to a value at which substantially no eddy current is produced in the core in a direction opposite to a magnetic flux produced when a current flows in the coil.

13. A spindle motor according to claim 12; wherein the thickness of the magnetic steel sheets is in the range of about 0.15 mm to less than 0.35 mm.

14. A spindle motor according to claim 12; wherein the thickness of the magnetic steel sheets is about 0.2 mm.

15. A spindle motor according to claim 12; further comprising a frame; and a sleeve fixedly mounted to the frame and defining a cylindrical opening; wherein the rotary body comprises a shaft rotatably disposed in the cylindrical opening of the sleeve and a hub fixedly mounted at one side of the shaft.

*A6
Cordell*

16. A spindle motor according to claim 15; wherein the shaft is disposed in the cylindrical opening such that a gap is defined between adjacent walls of the rotatable shaft, the sleeve, and the frame.

17. A spindle motor according to claim 16; further comprising lubricating oil disposed in the gap.

18. A spindle motor according to claim 12; wherein the respective magnetic steel sheets are provided with a plurality of rivet portions each of which comprises an indentation provided on one side of the respective magnetic steel sheets to form a projection on the other side; and the magnetic steel sheets are laminated together such that the projections on one of the magnetic steel sheets are fitted to the indentations of an adjacent magnetic steel sheet, and the magnetic steel sheets are riveted to each other at the rivet portions to thereby form the laminated structure of the core.

ADDITIONAL FEES:

A check in the amount of \$84.00 is enclosed to cover the cost of 1 additional independent claim in excess of 3. Should the check prove insufficient for any reason, authorization is hereby given to charge any such deficiency to our Deposit Account No. 01-0268.